REMARKS

A resumption of the processing of the above-identified application in view of the final determination of the infringement litigation, based on the amendments above, and the remarks following is respectfully requested.

I.   Amendments to Specification

The applicant is requesting that a number of amendments be made to the specification as set forth herein. These amendments do not add any new material to the specification, but are rather corrections to original errors in the '037 specification, clarifications consistent with the understanding of one skilled in the art, and the incorporation into the specification of material that was disclosed originally in dependent claims of the '037 Patent. The following provides a detailed discussion, and justification for the amendments:

1. The term "Boolean" in the original '037 specification was not properly capitalized. Accordingly, the **first, ninth** and **seventeenth** amendments to the specification address this error, and provide the proper capitalization for this term in the specification.

2. The term "RAINBOWX" is a commercial name used for this invention and, as such, should not be included in the specification. Accordingly, the **third, fifth, sixth, fifteenth** and **nineteenth** amendments delete this term from various parts of the specification.

3.   Each of **FIGS. 23 & 24** includes two tables. The first table indicates the colors generated by pairs of the first set of binary numbers (operating codes). The second table indicates the binary numbers (color codes) assigned to the various colors.   The **fourth** amendment simply states that **FIGS. 23 & 24** are "**in the form of a lookup table,**" and deletes the reference to the "EXCLUSIVE OR" Boolean function, which could also be used for the 4x4 and 8x8 embodiments to generate the second set of binary numbers (color or display codes) from

the first set of binary numbers (operating codes). This amendment does not add any new material to the specification, but rather explains that the first table in these figures is in fact a lookup table that provides the color corresponding to each pair of operating codes. Similarly, the **eighteenth** amendment deletes the reference to the "EXCLUSIVE OR" Boolean function.

4. The **fifth** amendment replaces the term "case" with the term "housing." The term "housing" accurately describes a housing for the device, and is consistent with the use of this term in the remainder of the specification, as well as in the claims.

5. The **fifth** amendment, also, corrects a grammatical mistake by replacing the term "defining" with the term "define."

6. In addition, the **fifth** amendment corrects a typographical error in the specification. The erroneous term "Planview" is being replaced with "perspective view" to describe **FIG. 3.** The term "perspective view" was used in the original '037 specification at column 3, line 3 to describe said **FIG. 3**.

7. The **sixteenth** and **twentieth** amendments correct an original error in the specification that describes the relationship between the maximum number of different visual indications (colors or images) and the number of playing positions. If N^2 represent the number of playing positions, then the maximum number of different visual indications (colors or images) is $N+1$ and not N. For example, in a 4x4 preferred embodiment that employs lighted indicators, the maximum number of colors is four (4) illuminated colors in addition to the color reflected from the surface of the playing position when the indicator is dark.

8. The **seventh** amendment is set forth to clarify the assignment of the first set of binary numbers (operating codes) to the playing positions. These binary numbers are first assigned to the perimeter playing positions. However, because of the connectivity provided by the routing

squares, said binary numbers are further assigned or projected to the remaining playing positions. The specification discloses that when a playing position is activated, the four binary numbers **respective** to that position are routed to each other. This means that the four binary numbers respective to an activated playing position are assigned or projected to the playing positions at the top, right, bottom, and left of the activated position. This clarification is required to ensure a clearer understanding of the routing process described in the preferred embodiment.

9. The specification at column 6, line 35 employs the erroneous technical term "INCLUSIVE OR" to describe the Boolean function used by the preferred embodiment to generate the most significant bit (left bit) of a color code from the most significant bits of the corresponding pair of operating codes. The correct description of the Boolean function employed by the invention is "EXCLUSIVE NOR." As explained by the inventor in the attached Supplemental Reissue Declaration, this error was caused by the educational background of the inventor, where the term INCLUSIVE OR was used to describe the truth table for the EXCLUSIVE NOR, or the COINCIDENCE Boolean function. **FIGS. 18 & 20** of the '037 patent indicates the use of the "⊙" Boolean operator for said most significant bit. The "⊙" Boolean operator is known in the Boolean algebra textbooks as the "EXCLUSIVE NOR," or the "COINCIDENCE" Boolean function. Further, the truth table derived from **FIGS. 23 & 24** corresponds to said "EXCLUSIVE NOR," or the "COINCIDENCE" Boolean function. Accordingly, the **ninth** amendment to the specification simply corrects the erroneous term "INCLUSIVE OR" by replacing it with "EXCLUSIVE NOR" to be consistent with the description in the drawings.

10. The **twelfth** amendment to the specification clarifies the obvious fact that there is almost an unlimited number of ways to assign the generated color codes to playing positions.

Also, this amendment explains that the solution to the puzzle with the objective of displaying the same color or image at all playing positions is independent of how the color codes are assigned to the playing positions. This is the case because, for example, in the 4 x 4 embodiment, when a solution is reached all generated color codes are identical (or belong to a subset of color codes corresponding to a single color), and it does not matter how the color codes are assigned to the various playing positions.

11. The **thirteenth** and **twentieth** amendments to the specification are related to a clarification of the term "multi-color display" when an illuminated indicator is used. These amendments simply state the obvious fact that when an illuminated indicator is "dark," the resulting visible color to the player is the external color reflected from the surface of the indicator. It is necessary to make such clarification to ensure a proper understanding of the visual indication produced by a "dark" indicator.

12. **FIGS 2a & 2b**, as well as the specification indicate that the routing square used for the preferred embodiment has two logical states. These states are identical to the states of an associated bi-stable switch (when a bi-stable switch is used to activate a playing position). Because it is not necessary to use a bi-stable switch to activate a playing position, and since a keypad switch (momentary switch) could be used to toggle the routing square between its two states, the **second, eighth, tenth, eleventh**, and **fourteenth** amendments are necessary to clarify that the state of the routing square could be used to control various functions described for the preferred embodiment when a keypad switch is used.

13. The **fourteenth** amendment is also related to the use of a keypad switch to activate the routing square disclosed in the preferred embodiment. Original claims 1 and 23 of the '037 patent recite that the entry control means are used to activate the routing structure described in

the preferred embodiment. Further, dependent claims 11, 31 and 37 state that the entry control means is implemented using a keypad switch. This amendment simply incorporates this original disclosure into the specification, and clarifies that when a keypad switch is employed, successive activations of the keypad switch toggles the routing square between its two states indicated in **FIGS 2a & 2b**. Further, this amendment reiterates the clarification set forth in the **second**, **eighth, tenth,** and **eleventh** amendments that the state of the routing square, rather than the position of a bi-stable switch, could be used to control other functions described in the preferred embodiment.

14. The **fourteenth** amendment to the specification is also related to the number of visual indications (colors or images) playable by the device. Original dependent claim 8 of the '037 Patent describes a simple process to vary the number of colors playable by a device by manipulating the assignment of color codes (second set of binary numbers) to a variable number of predetermined colors (including the color visible when an indicator is dark). Similarly, original dependent claim 28 of the '037 Patent describes the same process to vary the number of images displayed by the device, also, by manipulating the assignment of display codes (second set of binary numbers) to a variable number of predefined images, including the visual indication or image corresponding to a "blank" display. This amendment simply incorporates these original disclosures into the specification. For example, in the 4x4 preferred embodiment, there are eight (8) different color or display codes that could be assigned to 2, 3, 4 or 5 different visual indications (i.e., colors or images). Similarly, in the 8x8 embodiment, there are sixteen (16) colors or images that could be assigned to 2 to 9 different visual indications.

II. Amendment to the Drawings:

The applicant is requesting that a change be made to each of **FIGS. 23 & 24.** This change consists of the addition of one entry to the second (bottom) table in each of these figures, which provides the binary codes corresponding to the blank or white square shown in the first tabulation. The specification at column 7, lines 56 to 57, defines the color codes for the 4x4 embodiment as the three digit binary numbers having the first bit equal to "0," i.e., the binary numbers defined as "0--," where "-" denotes the don't care value.

Further, the applicant is requesting that two changes be made to FIG. 18 to make this drawing consistent with the ninth amendment to the specification.

III.   Amendment to the Claims:

Claims 1-82 were originally in this application. Claims 1-82 have now been cancelled, and new claims 83-127 have now been added. The newly added claims address the excesses and insufficiencies of the original claims of the '037 Patent, which have made said '037 Patent partly inoperative by reason of the applicant's claiming less than he had a right to claim in the patent, and in particular, by including, in claims 1 and 23 of the '037 patent unduly restrictive limitations that are not essential nor necessary parts of the invention, and by relying entirely on independent claims that were written mostly in means-plus-function format. As indicated in the attached "Supplemental Reissue Declaration," the new claims are amply supported in the specification.

In the interest of being concise, and in order to avoid duplication, the applicant incorporates herein by reference paragraphs 1 through 63 of said declaration. These paragraphs address each of the proposed new claims, and provide the justifications as to why each of these proposed new claims should be allowed.

Substance of Interview, Dated May 5, 2005

A personal interview took place on May 5, 2005, and was conducted by the Examiner, Mr. Michael O'Neill. During the interview, the Applicant discussed with the Examiner the proposed declaration and amendments to the claims, drawings and specification that were submitted on March 29, 2005, and how to place these amendments into compliance with the reissue regulations.

NABIL N. GHALY
Applicant, Pro Se
14 Longwood Drive
South Huntington, NY 11746
(631) 549-0980

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II. IN THE DRAWINGS

1.   Please amend **FIGS. 23 & 24**, as indicated in attached replacement drawings for these figures, by adding to the second (bottom) tabulation in each of these figures the color codes "0--" and "0---" corresponding to the blank (white) squares in the first (top) tabulation.

2.   Please amend **FIG.18**, as indicated in the attached replacement drawing for this figure, by clarifying that the assignment of "4" to the number of predetermined colors which may be displayed for the 4x4 preferred embodiment does not include the reflected color from the surface of the display when it is dark. Also, the definition of the Boolean operator "⊙" should be changed from "INCLUSIVE OR BOOLEAN FUNCTION" to "EXCLUSIVE NOR BOOLEAN FUNCTION."

OPCODE	0 0 0	0 0 1	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1
0 0 0								
0 0 1								
0 1 0								
0 1 1								
1 0 0								
1 0 1								
1 1 0								
1 1 1								

COLOR CODE	1 0 0	1 0 1	1 1 0	1 1 1	0 - -
COLOR					

COLOR ASSIGNMENT FOR N = 4

FIG. 23

Annotated Marked Up Drawing

OPCODE	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0000																
0001																
0010																
0011																
0100																
0101																
0110																
0111																
1000																
1001																
1010																
1011																
1100																
1101																
1110																
1111																

COLOR CODE	1000	1001	1010	1011	1100	1101	1110	1111	0---
COLOR									

COLOR ASSIGNMENT FOR N = 8

FIG. 24

Annotated Marked Up Drawing